

CLAIM AMENDMENTS

1. (Currently Amended) A method of fixing an artificial disc replacement (ADR) to a vertebral endplate, comprising the steps of:

locating a component of the ADR within an intervertebral disc space in spaced-apart relation to the vertebral endplate; and

introducing cement between the component and the vertebral endplate.

2. (Original) The method of claim 1, wherein the component of the ADR is a rigid endplate.

3. (Original) The method of claim 1, wherein the component of the ADR is polyethylene or other suitable polymeric material.

4. (Original) The method of claim 3, wherein the component articulates with a second component.

5. (Original) The method of claim 4, wherein the second component is substantially rigid.

6. (Original) The method of claim 5, wherein the substantially rigid component is constructed of titanium, chrome cobalt, or ceramic.

7. (Original) The method of claim 1, wherein the cement includes an antibiotic.

8. (Original) The method of claim 1, further including the step of preparing a vertebra with hypotensive anesthesia prior to fixing the ADR.

9. (Original) The method of claim 1, further including the step of preparing a vertebra with a hemostatic agent prior to fixing the ADR.

10. (Original) The method of claim 1, further including the use of fluoroscopy during the step of cementing the ADR.

11. (Original) The method of claim 1, further including the step of forming a cement-receiving hole or cavity in a vertebral body.

12. (Original) The method of claim 1, wherein the component of the ADR includes one or more channels to direct the cement between the component and the vertebral endplate.

13. (Original) The method of claim 1, wherein the component of the ADR includes one or more grooves to direct the cement between the component and the vertebral endplate.

14. (Original) The method of claim 1, wherein the component of the ADR includes a rim that bears against the vertebral endplate, thereby forming a cavity to receive the injected cement.

15. (Original) The method of claim 1, further including the steps of:
forming a passage through the vertebra having the endplate; and
injecting the cement through the passage.

16. (Original) The method of claim 1, further including the step of pressing the component against the vertebral endplate until the cement cures.

17. (Original) The method of claim 1, wherein the step of introducing cement between the component and the vertebral endplate occurs before the endplate is placed in spaced-apart relation to the vertebral endplate.

18. (Original) The method of claim 17, wherein the step of introducing cement between the component and the vertebral endplate utilizes a separate tool that is removed before the endplate is placed in spaced-apart relation to the vertebral endplate.

19. (Original) The method of claim 1, further including the step of shaping the vertebral endplate before introducing the cement.

20. (Currently Amended) A system including an artificial disc replacement (ADR) configured for placement within a vertebral disc space between opposing vertebral endplates, the ADR comprising: a component forming a cavity between the component and one of the vertebral endplates; and a path to fill the cavity with cement.

21. (Original) The system of claim 20, wherein the path is formed in the component.

22. (Original) The system of claim 20, wherein the path is a channel or groove.

23. (Original) The system of claim 20, wherein the component includes a peripheral rim to form the cavity.

24. (Original) The system of claim 20, wherein the component is a rigid endplate.

25. (Original) The system of claim 20, wherein the component is polyethylene or other suitable polymeric material.

26. (Original) The system of claim 20, wherein the component is a rigid endplate.

27. (Original) The system of claim 20, further including an instrument for urging the component against the vertebral endplate until the cement cures.

28. (Original) The system of claim 20, further including an instrument for injecting the cement prior to insertion of the component.

29. (Original) The system of claim 20, further including an instrument for pressurizing the cement following introduction.

30. (Original) The system of claim 20, further including an instrument for removing excess, cured cement prior to placement of the ADR.

31. (Original) The system of claim 20, further including two components, one proximate to each of the opposing vertebral endplates; and
paths for injecting cement between each component and its respective vertebral endplate.

32. (Original) The system of claim 20, wherein the component includes one or more protuberances to create a space for the cement.

33. (Original) The system of claim 20, wherein the protuberances are PMMA spacers.